

Sun Clock



Build a device that let s you tell time outside on a sunny day.

Kit contains:

- Sun clock template
- Daylight savings converter
- String

You will need: scissors, tape, a watch or clock, and a compass or compass app on a mobile device (optional).



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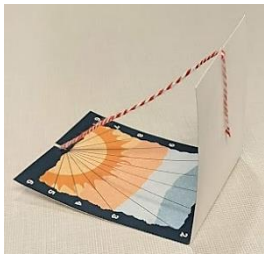
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INSTRUCTIONS

Step 1. Cut out your sun clock. Be sure to snip the notches at the top and bottom. Fold the clock on the dotted line to create a right (90°) angle.



Step 2. Slide the string into the notches. Pull taut, maintaining your device's right angle. Tape the ends of the string to the back and bottom, respectively.



Step 3. Cut out your daylight savings time converter. This add-on fits over the numbers to make your clock work during daylight saving time (March 10–November 3, 2024).



*This sun clock activity was created by the
STAR Net Library Network:
[https://community.starnetlibraries.org/wp-content/
uploads/2023/02/Make-your-own-sun-clock.pdf](https://community.starnetlibraries.org/wp-content/uploads/2023/02/Make-your-own-sun-clock.pdf)*

IS IT SUNNY OUT? LET'S GO!

Bring your sun clock, a regular watch or clock, and a compass (optional) outside. If you do not have a compass, you can ask your grown-up to download a free compass app on a mobile device. Be sure that your sun clock is equipped with the daylight savings converter if needed.



Stand in a sunny area. Hold your sun clock level to the ground. Rotate until the string casts a shadow on the correct time. This is the official

orientation for telling time with your sun clock. Check your compass. What direction is your sun clock facing? You can orient to this direction to tell time without a regular clock later.

Fun fact: the shadow-casting protrusion on a sundial or your sun clock is called a **gnomon**.



Learn more about early clocks:
<https://www.nist.gov/pml/time-and-frequency-division/popular-links/walk-through-time/walk-through-time-early-clocks>

DEALING WITH DAYLIGHT

Have you ever heard the expression “Spring forward, fall back”? This is a reminder to turn the clocks forward an hour in the spring for daylight saving time (DST) and turn them back an hour in the fall when we return to standard time.



Do we change the clocks because the sun or the planets do something different for half the year? Nope! Humans made this up. Way back in 1784, Ben Franklin *joked* about forcing people to wake up when the sun rises even if it's 4 AM, but DST didn't become a law (the first time) until World War I, when countries wanted to save electricity.



While daylight saving time is a human construct, we will observe a *real* daylight change for a few minutes on April 8, 2024, during the total solar eclipse. Starting on

March 29, you can get solar eclipse glasses at the library, while supplies last!

<https://www.almanac.com/content/when-daylight-saving-time>